

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
CA 1 Luminescent analysis in the plant laboratory and shop. E. M. Brynberg and Z. M. Sverdlov. <i>Bull. acad. sci. U. R. S. S. Ser. phys.</i> 4, 75-82(1940).—The app. was constructed (a spark fluorophosphoroscope) which permits rapid detn. of the sort of glass. The same app. can be used for the luminescent analysis of porcelains, blast-furnace slags, cements and various minerals. For emeries a special luminescence microscope was constructed with quartz lenses; corundum, diaspor, silicon and mica can be detd. in emery in 7-10 min. Rokasana Oamow State optical Inst, Leningrad																			
ASB-11A METALLURGICAL LITERATURE CLASSIFICATION										BENTONITE									
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1ST AND 2ND COLUMNS

PROCEDURES AND PROPERTIES UNDER

3RD AND 4TH COLUMNS

C-4

450-31.4 METALLURGICAL LITERATURE CLASSIFICATION

5TH COLUMN

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7TH COLUMN

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71ST COLUMN

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81ST COLUMN

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95TH COLUMN

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97TH COLUMN

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99TH COLUMN

100TH COLUMN

100 AND 1000 ORDERS		PROCESSES AND PROPERTIES INDEX		100 AND 1000 ORDERS	
13C 2-4 See abstracts preceding a colored plate. E. M. Brewster and F. P. Foster (Trans. Acad. Sci. U.S.S., 1901, 68: 193- 199).—Spectroscopic studies on such as the Haidinger brush are observed separately with a polarizer and a Savar plate in front of the eye, and can be explained by radial polarization in the fibres around the yellow spot. The can be followed by a screen with strips of polaroid arranged radially and rotated rapidly with a polarizer and Savar plate placed in front. The spectral lines giving best Haidinger brush were found to be between 600 and 610 mμ., being best at 600. This phenomenon may be related to the absorp- tion curve of the yellow macular pigment. K. J. W. C.		10000 STYDIAVA 10000 H1P ONV G1E 10000 BOWERY 10000 Q1E ONV 111			
10000 STYDIAVA 10000 H1P ONV G1E		10000 BOWERY 10000 Q1E ONV 111			

17A

3

"The Method of Colour Photomicrographs in the Ultra-Violet as Applied to Determination of Silver in Thin Sections. E. M. Rumborg and M. V. Shevchenko (*Compt. Rend. (Doklady) Acad. Sci. U.R.S.S.*, 1941, [N.S.], 32, (7), 486-488).—(In English.) Polished opaque thin specimens of mineral argentite were examined in ultra-violet light from a mercury arc, using the mercury lines of wave-length 3130, 3660, and 5461 Å. in succession. The microscope was fitted with a reflecting objective consisting of two spherical aluminum mirrors, which, being free from chromatic aberration, permitted the specimen to be focused with visible light and subsequently examined with light of any wave-length without refocusing. Images were photographically recorded and the photographs examined with the help of a chromoscope (not described) which yielded a colour image. Micro-inclusions of silver in the argentite were clearly revealed, silver having a reflection minimum at 3200 Å. The application of the method to the examination of other minerals, metals, and products of chemical reaction at surfaces is discussed.—G. V. R.

1943

State Optical Inst., Leningrad

BRUMBERG, Ye. M.

"Visual Measurements of Fluctuations of Quanta. I." Zhur. eksper. i
teoret. fiz., 12, Nos. 3-4, 1942

State Optical Inst., Leningrad

BRUMBERG, Ye. M.

"Visual Measurements of Quantum Fluctuations. I. The Threshold of Vision
as Compared with the Results of Fluctuation Measurements," Zhur. Fiz., 7, No.1, 1943

BRUMBERG, E. M.

FA 5T6

USSR/Microscopy

Radiation, ultraviolet
Microscopy, ultraviolet

Aug/Sep 1946

"Microscopy and Ultraviolet Rays," E. M. Brumberg,
5 pp

"Vestnik Akademii Nauk SSSR" Vol XVI, No 8,9

It is concluded that the method is still far from exhausted even as far as theory and apparatus is concerned, to say nothing of its various applications to concrete special investigations which are only in the initial stages. It will require cooperation of many workers in all fields fully to exploit the possibilities of microscopy.

5T6

10

BRUNBERG, E. M.

B

Microscope for Visual Colored Microscopy in Ultra-Violet Region. E. M. Brunberg. *Reports of the Academy of Sciences of U.S.S.R.*, v. 52, no. 6, 1946, p. 503-506.

COMMON ELEMENTS

COMMON VARIANTS INDEX

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

EXHIBIT ONE ONLY

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BRUNBERG, E. M.

C-4

BCA

1210. *Microscope for visual colour microscopy in the ultra-violet.*
 R. M. Brannberg. (*Compt. rend. Acad. Sci. U.R.S.S.*, 1946, 88,
 499-502; cf. C., 1948, 71).—A microscope for visual observation
 using the colour method with ultra-violet light is described. The
 image of the prep. is formed by ultra-violet rays and is projected by
 two objectives on to a thin fluorescent screen, where it is examined in
 fluorescent light by a second microscope. In the three-colour
 method a compound fluorescent screen is used with selective absorp-
 tion in the ultra-violet. A two-layer fluorescent screen consisting
 of U glass and anacaulin is used for blue and green, whilst red is
 supplied by direct visible light. In the two-colour method a single
 one-colour fluorescent screen is used in conjunction with visible
 light passed through a filter. The two-colour method gives better
 resolving power than the three-colour method. The apparatus can
 easily be modified for the examination of the fluorescence of the
 specimen itself.
 A. J. M.

State Optical Inst.

BRUMBERG, YE. M.

PA 9T57

USSR/Stains, Bacterial
Microscopes, Ultraviolet

May 1947

"Concerning the Use of Fixators of Biological
Objects as Stains for Ultraviolet Microscopes,"
Ye. M. Brumberg, Ye. A. Moiseyevand, A. A.
Ferkhmin, 3 pp

"Doklady Akademii Nauk SSSR" Vol LVI, No 5

General discussion of problem.

9T57

BRUMBERG, YE. M.

USSR/Physics

Microphotography

Infrared Photography

Sep/Oct 48

"Microphotography With Infrared Rays," Z. M. Balmasova, Ye. M. Brumberg, V. Ye. Kozlov,
Chair of Anat and Histol, Leningrad State U, 3 pp

"Iz Ak Nauk SSSR, Ser Biol" No 5

Infrared microscopy has previously been little used. Discusses methods of Blair and Davies (1933-34) and Bertrand et Becancon (1929). Describes a new method in detail. It can be used for various biological preparations, and staining the specimen is a simple, process. Included four photographs obtained by subject method.

Submitted 2 Feb 48

PA 49/49T107

PA 8/49T106

USSR/Physics
Phosphors
Crystals

Jul 48

"New Method of Studying the Absorption Spectra of
Crystal Phosphors," Ye. M. Brumberg, F. M. Pekarman,
4 pp

"Dok Ak Nauk SSSR" Vol IXI, No 1, 43-6

At present there is no reliable data on the absorption
spectra of crystallophosphors. This is due to the
considerable difficulty experienced in studying the
absorption spectra of fine crystalline powders.
Authors describe procedure for taking absorption
spectra of a single crystal, and give some preliminary
8/49T106

USSR/Physics (Contd)

Jul 48

data on the absorption spectra of crystal phosphors.
Submitted 3 May 1948.

8/49T106

BRUMBERG, YE. M.

PA 42/49T83

USSR/Physics

Mar/Apr 49

Phosphors
Spectra, Absorption

"New Method of Investigating the Absorption Spectra of Crystallophosphors," Ye. M. Brumberg, F. M. Pakerman, State Opt Inst, 6 pp

"Iz Ak Nauk SSSR, Ser Fiz" Vol XIII, No 2,

218-23

Developed method for recording absorption spectra of single crystals for small crystalline powdery phosphors. This method obviates effects of diffusive dispersion (inherent in powders) on measurements and permits study of absorption in the ultraviolet region close to the visible band by using very

42/49T83

USSR/Physics (Contd)

Mar/Apr 49

thin crystals. Recorded absorption spectra of ZnS-, ZnS-Cu-, ZnS-CdS- and ZnS-Mn-phosphors at wave lengths of 405 to 254 millimicrons.

42/49T83

1ST AND 2ND SERIES		PROCESS AND PROPERTIES INDEX		3RD AND 4TH SERIES	
CA				19	
Luminescence analysis of optical glasses. E. M. Abramova, Z. M. Sverdlov, and T. V. Timofeeva. <i>78411</i> <i>Zh. fiz. tverd. tel.</i>, S.S.S.R., Ser. Fiz. 13, 243-7(1949).—A 250- mμ radiation gives in glasses higher intensity of lumines- cence than 300-mμ radiation. A spark fluoroscope was developed which permitted the observation of both phos- phorescence ($\sim 10^{-8}$ sec.) and fluorescence ($< 10^{-9}$ sec.). The light source for fluorescence was a high-voltage con- densed spark between Fe electrodes. A simple mono- chromator consisting of a quartz lens and prism sep. the ultraviolet. This radiation fell on the object and the fluorescence could be observed in a double mirror. To ex- cite phosphorescence a spark was produced between a fixed electrode and one of 4 electrodes mounted on the rotating shaft of a motor. This carried a disk which cov- ered the object during the spark. This instrument re- quired a 10,000-v. 0.2-0.25 kv.-amp. transformer. A new instrument consists of a Hg-quartz lamp PRK 4, a Ni Co phosphate glass filter (cutoff 400-450 mμ) or (for weak rays) a liquid filter contg. a 1-cm. layer of 15% soln. of NiSO₄; it operates on 110 v. and 4 amp. Fluorescence was observed directly, phosphorescence with the help of a disk with 4 openings rotating at 2000 r.p.m., without filter. The phosphorescence was compared with that of a sample by means of an optical system. All glasses could be classified by the color of fluorescence and phosphores- cence in 23 groups. Some groups comprised several differ- ent glass types (a classification table of 8 basic types of optical glasses is given). This instrument is used in pro- duction and makes it possible to investigate 1000 samples in 8 hrs. Foreign glasses of similar optical const. give results comparable to Russian glasses. S. Pakser					
ASB-55A METALLURGICAL LITERATURE CLASSIFICATION		8-ETAPES-CLASSIC		12000 BOMIRV	
12000 STUBBIVN		12000 HAT ONY GSE		12000 HAT ONY GSE	
12000 HAT ONY GSE		12000 HAT ONY GSE		12000 HAT ONY GSE	

BRUMBERG, Ye. M.

PA 173T101

USSR/Physics - Ultraviolet Radiation 21 Dec 49
Chemistry - Chemical Analysis

"Observations by Ultraviolet Rays and Their
Application to Adsorptional Chemical Analy-
sis," Ye. M. Brumberg, S. A. Gershgorin

"Dok Ak Nauk SSSR" Vol LXIX, No 6, pp 801-804

Variant of the Russian botanist M. S. Tsvet's
"chromatography" method (M. S. Tsvet, "Chroma-
tographic Adsorptional Analysis" (Khromatograf-
icheskiy Adsorbtsionnyy Analiz) 1946). Descrip-
tion of photographic and visual methods invol-
ving filter-paper technique. Submitted 29 Oct
49 by Acad S. I. Vavilov.

173T101

BRUMBERG, E. M.

Chemical Abstracts
Vol. 48 No. 5
Mar. 10, 1954
Electronic Phenomena and Spectra

Chem 23
Use of ultraviolet light in chromatography. E. M. Brunberg. *Issledovaniya v Oblasli Khromatog., Trudy Presvyaz. Sovetskaniya Khromatog., Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1950, 127-36 (Pub. 1952); cf. C.A. 45, 8391i. —The use of fluorescence in chromatographic sepus. is discussed. Visual, photographic, and photoelec. methods are explained. Possibilities of infrared are briefly cited.
G. M. Kosolapoff

B. Rb.

C-4. In *transmission*
(*trans - miscellanea*)

4141. Use of ultra-violet rays in analytical chemistry. I. Volumetric analysis in ultra-violet rays. E. M. Abramberg, I. A. Pavel, and R. I. Stolyarov (*J. anal. Chem.*, 1958, 8, 198-199).—In many types of titration the addition of an indicator may be obviated with advantage by operating in filtered ultra-violet light and observing the transmitted light on a fluorescent screen. A suitable source of illumination is a low-pressure Hg lamp and a generally serviceable screen is one excited by rays of λ 250 m μ . The solution is titrated in a cell with quartz ends placed between the lamp and the screen. The end-point is indicated by the appearance or disappearance of colour on the screen. Examples of application of the method are: (1) titration of $\text{Ce}(\text{SO}_4)_3$ with H_2O_2 and inversely; (2) titration of $\text{Ce}(\text{SO}_4)_3$ with ascorbic acid; (3) titration of ascorbic acid with FeCl_3 ; (4) titration of FeCl_3 with KI and back-titration of the I liberated with thiosulphate.

G. S. SMITH.

1ST AND 2ND ORDERS		PROCESS AND PROPERTIES INDEX		3RD AND 4TH ORDERS	
6650. An Instrument for Chromatography and Chemical Analysis in Ultraviolet Rays (Ultrachemiscopes). E. M. Brumberg. Doklady Akad. Nauk S.S.S.R. 72, 885-8(1950) June 11. (In Russian) In previous papers (Doklady Akad. Nauk S.S.S.R. 25, No. 6 (1950); 69, No. 8(1949)) the author has described several methods of microchemical analysis and chromatography in ultraviolet light, in which visible color shadows, reflecting the character of absorptions in the ultraviolet, were obtained with the aid of fluorescent screens. A description is given here of a simple instrument serving similar purposes. In front of a Mg lamp, emitting light of 283 mμ wavelength and longer, are placed (1) a dark-purple glass plate absorbing the visible and transmitting in the range 410 to 240 mμ, (2) the filter paper bearing the chromatographic diagram or the spot left by the chemical drop analysis, and (3) a fluorescent screen. The screen is a glass plate with three thin layers of substances differing in fluorescence and absorption spectra in such a way that, as a result of mutual absorption, only rays of 400 to 380, 380 to 370, and <370 mμ traverse, respectively, the three layers, and the outgoing fluorescence is a mixture of the three fundamental colors, viz., red, green, and blue. As a consequence, the absorption in the chromatographic spots produces shadows upon the screen whose colors can be used as characteristic signs of the separated substances. The author is working at present on a procedure that will permit the use of shorter (<250 mμ) wavelengths; the chromatographic diagram (or the initial mixture) is "developed" with the aid of reagents transforming the original substances into others that absorb the ultraviolet (e.g., amido-acids are transformed into benzoyl derivatives).					
ASB-5LA METALLURGICAL LITERATURE RECORDING SEARCHED INDEXED FILED 1950					

CA

Etching of metals and minerals for ultraviolet microscopy
 E. M. Brumberg, G. A. Zaitsev, and T. G. Porokhova.
Doklady Akad. Nauk S.S.S.R. 73, 1165-8(1950).—Exptl.
 studies were made relating to ultraviolet metallography of
 metals and minerals with metallic luster. A Beckman
 spectrophotometer, fitted for measuring the coeff. of specular
 reflection, detd. percentage of reflectivity in the range 220-
 600 μ for pieces of pure metals given a metallographic
 polish. In some cases, such as Bi and Al, pronounced dif-
 ferences in reflectivity appeared below about 400 μ . In
 other cases, e.g. Si and Sn, no large difference appeared.
 It was then possible to make use of an ultraviolet light is
 which strong, selective absorption of ultraviolet light is
 caused by a thin film of a metal salt or oxide, invisible in
 ordinary light. From 0.2 to 0.8 μ films of various oxides
 and salts were prepd. by vacuum evapn. on quartz plates
 and their reflectivity curves were detd. *in situ*. These
 curves showed a sharp drop, generally in the range 200 to
 400 μ . Gases such as O_2 and H_2S were used as etchants.
 A method of color photography in the ultraviolet involves
 taking two or more pictures of a given area of the specimen,
 the second (and each successive) picture being taken after
 (a different) etching. Each picture is then projected in the
 Chromoscope with a different color of filter. This procedure
 allows distinguishing among many phases in an alloy. The
 structure of Silumin was shown in 2 exposures, and the 4
 phases present appeared in different colors. This method
 can be combined with that involving the use of different
 wave lengths.
 A. G. Guy

1951

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
B										26									
557* Application of Ultraviolet Rays in Chromatographic Analysis in Adsorption Columns. (In Russian) P. M. Brum, I. N. Bozhanova, V. P. Dolginskii, and S. E. Manolov. <i>Doklady Akademii Nauk SSSR</i> (Reports of the Academy of Sciences of the USSR), new ser., v. 74, Oct. 1, 1950, p. 747-750. Describes technique for the above using specially developed apparatus.																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION																			
1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									

BTR
BRUNBERG, Y.E.M.

1486* Application of Ultraviolet Rays in Chromatography.
(In Russian.) E. M. Brunberg. *Uspekhi Fizicheskikh Nauk*, 5.
11, Apr. 1951, p. 600-610.
Reviews the above. Includes diagrams and graphs. 24 ref.

Name of chromatography was applied in 1903 by
M. S. Tsvet, Russian botanist, to his phys
method of separ of closely related, chem sub-
stances. B.Ya. Svechnikov had to write review
on subject (cf "Priroda" 6, 14, 1941) In 1949
Vavilov, Dir. Le ingrad Lab. applied this method
in ultraviolet light region.

BRUMBERG, YE. M.; BUKHMAN, M. P.; KOZLOV, V. YE.

Microscope and microscopy

Histochemical reactions for the ultraviolet microscopy. Dokl. AN SSSR 86, no. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. UNCLASSIFIED.

BRUMBERG, Ye.M.; KRYLOVA, T.N.

~~XXXXXXXXXXXXXXXXXXXX~~
Use of interference light filters in fluorescent light microscopy.
Zhur.ob.biol. 14 no.6:461-464 N+D '53. (MLBA 6:11)
(Fluorescence) (Microscope and microscopy)

BRUMBERG, Ye.M.; LARIONOV, L.F.; KONDRAT'YEVA, T.M.; KOROLEV, N.V.

Visual ultraviolet microscopy as a new method of study of live
cell. Doklady Akad. nauk SSSR 88 no. 6:1055-1057 21 Feb 1953.
(GIML 24:1)

1. Presented by Academician A. I. Abrikosov 6 January 1953. 2. Central Roentgenological, Radiological, and Cancer Institute.

7
Fluorescent microscope. E. M. Brumberg. Zhur
bichski Biol 16, 222-37 (1955). ~~Construction and details~~
are described of operation of a fluorescent microscope
with a unique illumination, used for living cells.

Distr: 4E1j/4E3d/

7
Application of ultraviolet rays in chromatography. E. M.
Bramberg and E. A. Alaterova. *Kromatografiya*, *Lenin-*
gradskiy Gosudarst. Univ. im. A. A. Zhdanova, Sbornik State
1956, 57-58.—A series of inorg. salts and org. acids were
sepd. by chromatography on Al_2O_3 , ultraviolet photography
being used. Even negligible amts. (10^{-4} or 10^{-5} mg.) can
be detected if the column is photographed in the light of a
suitable wave length. A. Libackyi

1, 5
2

re jg

BRUMBERG, Ye.M.

Ultraviolet fluorescence microscopy [with English summary in insert].
Zhur.ob.biol. 17 no.6:401-412 N-D '56. (MLRA 10:9)

1. Gosudarstvennyy opticheskiy institut im. S.I.Vavilova.
(FLUORESCENCE MICROSCOPY)

~~BRUMBERG, Ye.M.~~; MEYSEL', M.N.; BARSKIY, I.Ya.; BUKHMAN, M.P.

Experiment in ultraviolet fluorescence microscopy of biological
objects [with summary in English]. Zhur.ob.biol. 19 no.2:99-107
Mr-Apr '58. (MIRA 11:3)

1. Gosudarstvennyy opticheskiy institut im. S.I.Vavilova, Institut
biofiziki AN SSSR i Botanicheskiy institut im. V.L.Komarova AN SSSR.
(FLUORESCENCE MICROSCOPY) (ULTRAVIOLET RAYS)

BARSKIY, I.Ya., ~~BRUMBERG~~, Ye.M.

Ultraviolet fluorescence of aromatic amino acid crystals
[with summary in English]. Biokhimiia 23 no.5:791-792
S-O '58 (MIRA 11:11)

1. Botanicheskiy institut imeni Komarova i Gosudarstvennyy
opticheskiy institut imeni S.I. Vavilova, Leningrad.
(AMINO ACIDS, determ.

ultraviolet fluorescence of aromatic acids crystals (Rus))

BRUMBERG, Ye.M.

Fluorescence microscopy of biological objects with incident
illumination. Biofizika 4 no. 4:471-475 '59. (MIRA 14:4)
(FLUORESCENCE MICROSCOPY)

BRUMBERG, Ye.M.; BARSKIY, I.Ya.; MOROZ, P.E.

Ultraviolet microscopy of biological objects with incident
illumination. Biofizika 4 no.5:595-599 '59. (MIRA 14:6)
(MICROSCOPY) (ULTRAVIOLET RAYS)

BARSEIY, I.Ya.; BRUMBERG, Ye.M.; BUKHMAN, Ye.M.; VASILEVSKAYA, V.K.;
PLUZHNIKOVA, G.Ye.

Use of ultraviolet fluorescence microscopy in the study of botanical
objects. Bot.zhur. 44 no.5:639-642 May '59. (NIRA 12:11)

1. Botanicheskiy institut im. V.L. Komarova AN SSSR i Leningradskiy
gosuniversitet.
(Botanical research) (Fluorescence microscopy) (Photomicrography)

Brumberg, Ye. M.

- REPORTS TO BE SUBMITTED TO THE
1st Intl Congress of Histo-
chemistry and Cytochemistry,
Paris, France, 28 Aug-3 Sep, 60.
- ROBINSON, V. Ja. - "The nucleic acids of the nerve cell's nucleus and cytoplasm. V. and SHUMKOVICH, M. Ya. - "Histochemistry of extracellular connective tissue in pathological conditions".
RUBINSKY, A. Ja. - "Some aspects of carbohydrate metabolism of the transitional epithelium".
GORDON, G. B. - "The studies on the cell nucleoproteins with the aid of phenol fractionation procedure".
GRIGOR'YEV, A. A., MOISEV, M. M., RUBINSKY, A. Ja., RUBINSKY, I. Ja. and GUTIN, A. V. - "Ultraviolet fluorescence microscopy as a new field of histochemistry".
RUBINSKY, A. Ja. - "Histochemical characteristics of glandular polyploidosis".
RUBINSKY, I. Ja. - "The determination of sulfhydryl groups of proteins by means of the inhibitor-indicator (bromocetylthiochromic acid) method".
MILNOV, P. I. - "Cytochemical and autoradiographic analysis of the role of nucleic acids in the synthesis of cellular proteins".
ONITSKAYA, O. V. - "The evolution of the protein-polysaccharide composition of cardiac connective tissue in the development of rheumatic process".
PELTON, A. L. - "Histochemical contribution to the study of neurohypophyseal secretion".
PRUDOM, Y. - "The histochemical study of the chemical activity of the neuron mitochondria".
A summary of this report has been received by the organizers of the Congress and is included in Group I).
Aspects of histochemistry and the nervous system (This is a proposed report of which the exact title is not yet known. It is listed by general subject matter under Group III).
RUBINSKY, M. A. - "Histochemistry in experimental cancer chemotherapy".
ROBINSON, G. I. - "Comparative histochemistry of neurons differing in their function".
RUBINSKY, A. L. - "Histochemistry of nucleoproteins in mitochondria of different animal cells and their biochemical properties".
RUBINSKY, A. L. - "Histochemical and cytochemical peculiarities of nerve tissue biological organization".
RUBINSKY, A. I. - "Histochemical examination of connecting tissues in the light of recent pathological studies".
RUBINSKY, A. A. - "A comparative physical and chemical characteristic of presollagen and collagen".
VAGIL'YER, Yu. M. - "Histochemical studies of the connective tissue, stained by the method of development of silver in the source of development of silver in the source".
ZAKHAROV, I. B. - "Protein and nucleic composition of connective tissues".
ZAKHAROV, I. B. and VILKOVICH, K. A. - "On the role of cell nucleus and its fractions in protein biosynthesis measured by the incorporation of labeled amino acid".

807/3973

PLANE I BOOK EXPLORATION

Sovetskoye po Luminestentsii, 8th, 1959
Metody Luminestentsnoy analize: materialy sovetskoy (Methods for Luminescence Analysis: Materials of the 8th Conference) Minsk, Izdatvo AN BSSR, 1960. 147 p. 1,000 copies printed.

Sponsoring Agency: Akademiya nauk Belorusskoy SSR. Institut fiziki.

General Ed.: I. A. Borisevich; Ed.: L. Timofeyev; Tech. Ed.: I. Sidorin.

FOREWORD: This collection of articles is intended for chemists and physicists interested in molecular luminescence, and for scientific personnel concerned with applications of this and related phenomena in research in the life sciences.

CONTENTS: The collection contains 28 papers read at the Eighth Conference on Luminescence, which took place 19-20 October, 1959 (place of conference not given). These studies are concerned principally with the development of new luminescence methods for quantitative and qualitative chemical analysis, and with the applications of luminescence in medical and biological research. They discuss luminescence methods for the determination of uranium, mercury, magnesium, aluminum, boron, and other elements, as well as luminescence methods for the diagnosis of skin cancer and the detection of grippa virus, pneumonic microorganisms, etc. The structural design of new instruments for luminescence analysis is described. The conference was not concerned with studies on the phosphorescence of organic phosphores. There is a discussion of the contributions of Soviet specialists in molecular luminescence in the conference of the year and a half preceding the conference. The studies of Y. K. Maizyev (9, 75) and of V. V. Pivovarov (9, 76) have been mentioned because of their importance. References are mentioned. References accompany most of the articles.

Timofeyev, L. M. Luminescence Method and Device for the Analysis of Vapor-Oil Emulsions

Podolskiy, A. M., L. Ya. Chochik, A. D. Chuchay, and I. A. Timofeyev. [Izdat. Belorusskoye Izdat. "Nauka" Belorusskoye, Minsk, 1959]. Kiyevskiy universitet (Sill of the Kiyev Plant "Krasnyy Belinobchik," Kiyev University)]. Luminescence Analysis of Rubbers

Karman, M. I. [Tablennatnoy nuchno-izdatovatel'skiy Institut khimicheskoy promyshlennosti (Tablennatnoy Scientific Research Institute of the Cable Industry)]. Investigation by the Luminescence Method of the Diffusion of Liquids in Rubbers

Pyryova, V. M., and V. D. Zaytseva. [Nuchno-izdatovatel'skiy Institut rezhimov i lachnykh izdeliy (Scientific Research Institute of Rubber and Latex Products)]. Luminescence Properties of Ingredients and Rubbers Made From Natural Rubber

Brumberg, Ye. M., M. M. E. Myzel', and A. Y. Ostina. [Institut biologicheskoy fiziki AN BSSR (Institute of Biological Physics AS USSR)]. Luminescent Microscopy of Living Organs

Antsiferov, V. D. [Khabarovskiy gosudarstvennyy meditsinskii institut (Khabarovsk State Medical Institute)]. Luminescence Microscopic Analysis of Skin Cancer

Kozmenko, A. P., and I. M. Ischenko-Ilenik. Study by the Luminescence Microscopy Method of the Morphology of Certain Sporozoites and Asporogenous Bacteria

Polubnyaya, Ye. I. [Institut fiziki AN BSSR (Institute of Physics of the Academy of Sciences of the BSSR)]. Experimental Use of Luminescence Microscopy in Neurology

Card 8/10

BRUMBERG, Ye.m. (Leningrad); BARSKIY, I.Ya. (Leningrad)

Use of ultraviolet fluorescent microscopy with cytological
objects. TSitologiya 2 no.3:318-324 My-Je '60.

(MIRA 13:7)

(FLUORESCENCE MICROSCOPY) (CELLS)

BRUMBERG, Y.G.M.; BARSKIY, I.Ya.; KONDRAT'YEVA, T.M.; CHERNOGRYADSKAYA, N.A.;
SHUDEL', M.S.

Ultraviolet fluorescence microscopy of formed elements of the marrow
and peripheral blood. Dokl. AN SSSR 135 no.6:1521-1524 D '60.
(MIRA 13:12)

1. Institut tsitologii Akademii nauk SSSR. Predstavleno akademikom
A.N. Tereninym.
(MARROW) (BLOOD CELLS) (FLUORESCENCE MICROSCOPY)

BRUNYBERG, YE. M. (USSR)

"Ultraviolet Fluorescence Microscopy."

Report presented at the 5th International Biochemistry Congress,
Moscow, 10-16 Aug 1961

BRUMBERG, YE. M., CHERNOGRYADSKAYA, N. A., and BARSKIY, I. YA. (USSR)

"Ultraviolet Fluorescence Microscopy of Bone Marrow and Peripheral
Blood Cells."

Report presented at the 5th International Biochemistry Congress,
Moscow, 10-16 Aug 1961

BRUMBERG, Ye.M.; BARSKIY, I.Ya.; VARGINA, N.M.; KONDRAT'YEVA, T.M.

Use of ultraviolet microcinematography in observations on the
behavior of nucleic acids in living cells. TSitologiya 3
no. 1:85-88 Ja-F '61. (MIRA 14:2)

1. Gosudarstvennyy opticheskiy institut i Tsentral'nyy institut
meditsinskoy radiologii Ministerstva zdravookhraneniya SSSR;
Leningrad.

(NUCLEIC ACIDS) (MICROCINEMATOGRAPHY) (ULTRAVIOLET RAYS)

BRUMBERG, Ye.M.; BARSKIY, I.Ya.; KONDRAT'YEVA, T.M.; CHERNOGRAYDSKAYA,
N.A.

Ultraviolet fluorescence of formed elements in the marrow and peripheral blood of animals and man under normal and pathological conditions. Report No. 1: Ultraviolet fluorescence of formed elements in the marrow and peripheral. Biofizika 6 no. 1:114-118 '61. (MIRA 14:2)

1. Institut tsitologii AN SSSR, Leningrad.
(NARROW) (BLOOD CELLS) (FLUORESCENCE MICROSCOPY)

BARSKIY, I.Ya.; BRUMBERG, Ye.M.; KONDRAT'YEVA, T.M.

Ultraviolet fluorescence of bone marrow and peripheral blood elements in normal and pathological conditions in men and animals. Report No.2: Ultraviolet fluorescence of bone marrow and peripheral blood cells in animals in radiation injury. Biofizika 6 no.5:605-609 '61. (MIRA 15:3)

1. Institut tsitologii AN SSSR, Leningrad i Tsentral'nyy nauchno-issledovatel'skiy institut meditsinskoy radiologii Ministerstva zdravookhraneniya SSSR, Leningrad.

(RADIATION SICKNESS)

(MARROW)

(BLOOD CELLS)

BRUMBERG, Ye.M.; BARSKIY, I.Ya.

Microscope for ultraviolet fluorescence microscopy. Zhur. ob.
biol. 24 no.6:459-466 N-D '61. (MIRA 14:11)

1. Gosudarstvennyy opticheskiy institut imeni S.I.Vavilova.
(FLUORESCENCE MICROSCOPY)

S/020/61/141/003/016/021
B103/B110

AUTHORS: Brumberg, Ye. M., Meysel', M. N., Corresponding Member AS
USSR, Barskiy, I. Ya., Zelenin, A. V., and Lyapunova, Ye. A.

TITLE: Ultraviolet luminescence of cells in mitotic division

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 141, no. 3, 1961,
723 - 725

TEXT: Cells and tissues grown outside the organism were studied: (a) human: an inoculated ~~descent~~ of amnion cells; (b) cultures of embryonic epithelium; (c) of fibroblasts; (d) animal: primary cultures of the kidneys of guinea pigs and monkeys. Single tissue cultures were grown on quartz glass and examined by ultraviolet-luminescence microscopy either living (in physiological salt solution) or after fixing by methanol. The methods had been described previously (Ye. M. Brumberg et al., Biofizika, 6, No. 1, 114 (1961); Ye. M. Brumberg et al. Tsitologiya, 2, 589 (1960); Ye. M. Brumberg, Zhurn. obshch. biol. 27, No. 6, Card 1/4

Ultraviolet luminescence of cells in...

S/020/61/141/003/016/021
B103/B110

401 (1956)). Microphotographs showed that the cells undergoing mitosis differed from cells at rest in the following facts: The cells at rest weakly fluoresce; fluorescence increases already during the early prophase and reaches maximum intensity in the middle of the metaphase. Then, it slowly decreases; however, until complete separation of the daughter cells, it exceeds the fluorescence of the cells at rest undergoing interkinesis. The cell nucleus, unlike the total cytoplasm, does not fluoresce. Dark, not fluorescing chromosomes can be seen on the background of the cytoplasm. The absorption of shortwave ultraviolet rays (250-270 mμ) by the cells increases with rising intensity of fluorescence. Absorption and fluorescence patterns interrelated like a negative and a positive; in both images, however, the chromosomes remain dark. The fluorescence of cells at rest is not so constant as that of dividing cells. There are always individual groups of brightly fluorescing cells at rest. In most cases these are degenerating, perishing cells whose increasing fluorescence is not accompanied by increased ultraviolet absorption. Chromoscopic examination (Ye. M. Brumberg. DAN, 25, 473 (1939)) showed degenerating cells at rest and dividing cells are

Card 2/4

Ultraviolet luminescence of cells in ...

S/020/61/141/003/016/021
B103/B110

differently colored. Selective extraction of nucleotides, nucleic acids, and lipoids with perchloric acid in the cold and at 90°C, and with ribonuclease showed that the ultraviolet fluorescence of dividing cells is not due to the action of these extracted substances, except the bone marrow, the fluorescence of which rapidly decreases after extraction of nucleotides. The character of fluorescence cannot be changed by strong oxidizers and reducing agents (rongalite, potassium permanganate). 2% of urea somewhat increases the fluorescence of cells at rest. It is concluded that the intensity of fluorescence of cells undergoing mitosis is increased by high-molecular substances (most probably proteins containing cyclic amino acids) which are difficult to extract from the cell. This increase is possibly related to a reversible denaturation of protein in various physiological processes (muscular work). This might not be an absolutely formal analogy, since the occurrence of contractile proteins in the cell during mitosis had previously been proved. These proteins effect the mechanical work of chromosome separation and cell division. The muscles differ from other tissues in their particularly strong ultraviolet fluorescence. It is less probable that cell fluorescence during division should be increased by low-molecular substances

Card 3/4



Ultraviolet luminescence of cells in ...

S/020/61/141/003/016/021
B103/B110

which are produced in metabolic shifts or accumulated. This means that these shifts occur only in certain stages of mitosis (Refs. 8 and 9, see below), whereas an increase of fluorescence could be observed during all stages of division. Experiments will be continued. Ye. S. Zalmanzon is thanked for supplying the tissue cultures. There are 11 references: 7 Soviet and 4 non-Soviet. The three most recent references to English-language publications read as follows: Ref. 8: H. A. Went, Ann. N.Y. Acad. Sci., 90, Art. 2, 422 (1960); Ref. 9: D. Mazia, Sulfur in Proteins, R. Bensh et al. edit., N.Y., 1959; Ref. 10: J. Brachet, The Biochemistry of Development, London, 1960.

ASSOCIATION: Institut radiatsionnoy i fiziko-khimicheskoy biologii Akademii nauk SSSR (Institute of Radiation and Physico-chemical Biology of the Academy of Sciences USSR)
Institut tsitologii Akademii nauk SSSR (Institute of Cytology of the Academy of Sciences USSR)

SUBMITTED: August 28, 1961

Card 4/4

BARENBOYM, G.M.; BARSKIY, I.Ya.; BRUMBERG, Ye.M.; PINTO, R.I.

Apparatus for measuring the fluorescence intensity of micro-
structures of biological objects. Biofizika 7 no.3:351-356 '62.
(MIRA 15:8)

1. Institut tsitologii AN SSSR, Leningrad.
(BIOLOGICAL APPARATUS AND SUPPLIES)
(FLUORESCENCE---MEASUREMENT)

BRUMBERG, E.M. [Brumberg, Ye.M.]; BARSKI, I.I. [Barskiy, I.I.]

Microscope for the ultraviolet fluorescent microscopy. Analele biol
16 no.4:141-149 J1-Ag '62.

*

BRUMBERG, Ye. M.

"Ultraviolet Fluorescence Microscopy." pp. 13

~~Institute of Cytology AS USSR~~ State Optical Institute imeni S. I. Vavilov

II Nauchnaya Konferentsiya Instituta Tsitologii AN SSSR. Tezisy Dokladov
(Second Scientific Conference of the Institute of Cytology of the Academy
of Sciences USSR, Abstracts of Reports), Leningrad, 1962 88 pp.

JPRS 20,634

BRUMBERG, Ye.M.; BARSKIY, I.Ya.; CHERNOGRYADSKAYA, N.A.; SHUDEL', M.S.

Ultraviolet fluorescence microscopy. Izv. AN SSSR. Ser. biol.
28, no. 1: 87-90 Ja-F'63. (MIRA 16:8)

1. Institute of Cytology, Academy of Sciences of the U.S.S.R.,
Leningrad.

(FLUORESCENCE MICROSCOPY)

ROZANOVA, I.M.; BARSKIY, I.Ya.; BRUMBERG, Ye.M.

Ultraviolet fluorescence of the blood cells in people with
leukemia. Dokl. AN SSSR 150 no.4:907-908 Je '63.
(MIRA 16:6)

1. Leningradskiy nauchno-issledovatel'skiy institut pere-
vaniya krovi. Predstavleno akademikom A.I. Oparinym.
(LEUKEMIA) (BLOOD CELLS) (MARROW)

BRUMBERG, Ye.M.; BARSKIY, I.Ya.; CHERNOGRYADSKAYA, N.A.; SHUDEL', M.S.

Nature of the ultraviolet fluorescence of cells. Dokl. AN SSSR
150 no.6:1356-1358 Je '63. (MIRA 16:8)

1. Institut tsitologii AN SSSR. Predstavleno akademikom A.I.
Oparinym.

(BIOLUMINESCENCE) (CELLS)

BRUMBERG, Ye.M.; BARSKIY, I.Ya. (Leningrad)

Contact fluorescence microscope for medical examinations.
Ark. pat. no.7:59-62 '64. (MIRA 18:7)

1. Opticheskiy institut imeni S.I.Vavilova).

L 13989-65 EEO-2/EXT(1)/EED-2 Pn-h/Pas-2/Pl-h IJP(c)/ASD(a)-5/SSD/ESD(c)/
ESD(dp)/ESD(gs)/ESD(t) CC
ACCESSION NR: AP4048977 S/0286/64/000/020/0091/0092

AUTHOR: Brumberg, Ye. M.

TITLE: Device for obtaining chromatic images of objects observed in the invisible region of the spectrum. Class 21, No. 79799

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1964, 91-92

TOPIC TAGS: light filter, image converter, chromatic image, optic system

ABSTRACT: This Author Certificate introduces a device for obtaining color images of objects in the invisible region of the spectrum. An optical system splits the light into beams which correspond to "colors" in the image. In the path of each beam is placed a filter corresponding to a "color" in the invisible region of the spectrum, a fluorescent screen, and a filter corresponding to a color in the visible region. Existing optical techniques are used to converge the individual images into the visual field of an eyepiece.

ASSOCIATION: none

Card 1/2

L 13989-65
ACCESSION NR: AP4048977

SUBMITTED: 16Mar46

NO REF SOV: 000

ENCL: 00

OTHER: 000

SUB CODE: OP, EM

ATD PRESS: 3133

Card 2/2

BRUMBERG, I.Ye.; ~~BRUMBERG, Ye.M.~~

Ultraviolet fluorescence of cells in phagocytosis. Biofizika 9 no.2:
237-238 '64. (MIRA 17:12)

1. Institut biologicheskoy fiziki AN SSSR, Moskva, i Leningradskiy
institut perelivaniya krovi.

BRUMBERG, I.Ye.; BRUMBERG, Ye.M.

Use of ultraviolet fluorescence microscopy for the study of
the action of mouse blood plasma on LIO-1 tumor cells.
Biofizika 9 no.4:502-505 '64. (MIRA 18:3)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

BRUMBERG, Ye.M.; BRUMBERG, I.Ye.

Effect of glycolytic toxins on ultraviolet cell fluorescence.
(MIRA 18:7)
Biofizika 9 no.6:748-750 '64.

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

CHERNOGRYADSKAYA, N. A.; BRUMBERG, Ye. M.; BRESLER, V. M.; PILSHCHIK, Ye. M.; SHUDELOV, M. V.;
KUDRYAVTSEVA, M. V.; ASTASHINA, T. P.

"Some data on the inherent ultra-violet fluorescence of mitochondria of living cells."

report submitted for 2nd Intl Cong, Histochemistry & Cytochemistry, Frankfurt,
16-21 Aug 64.

Lab Microscopy, Inst of Cytology, AS USSR, Prospekt Maksimina, Leningrad F-121.

SHUDEL', M.S.; CHERNOGRAYDSKAYA, N.A.; BRUMBERG, V.A.; ROZANOV, Yu.M.;
BRUMBERG, Ye.M.

Effect of some metabolic poisons of the respiratory chain on the
ultraviolet fluorescence of cells. Dokl. AN SSSR 157 no. 2:447-
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1. Institut tsitologii AN SSSR. Predstavleno akademikom A.I.
Oparinym.

ALEKSANDROV, V.Ya., prof.; BRODSKIY, V.Ya.; BRONSHTEYN, A.A.;
 BRUMBERG, Ye.M.; VAKHTIN, Yu.B.; VINNIKOV, Ya.A.;
 GAYTSKHOKI, V.S.; GOROSHCHENKO, Yu.L.; GULYAYEV, V.A.;
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 KHEYSEN, Ye.M.; CHERNOGRYADSKAYA, N.A.; TROSHIN, A.S., otv.
 red.; MEYSEL', M.N., red.; MIKHAYLOV, V.P., red.; NEYFAKH,
 S.A., red.; PARIBOK, V.P., red.; POLYANSKIY, Yu.I., red.;
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[Manual on cytology in two volumes] Rukovodstvo po tsitologii v
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1. Akademiya nauk SSSR. Institut tsitologii.

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Effect of carcinogenic and nonsarcinogenic aminoazo compounds
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cells. Biul. eksp. biol. i med. 59 no.5:89-92 '65.
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1. Laboratoriya novykh metodov mikroskopii (zav. - prof.
Ye.M.Kheysin) Instituta tsitologii (direktor -- chlen--
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Submitted January 18, 1964.

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(MIRA 19:1)

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1. Internal organ system balance. 2. Internal organ system balance. 3. Internal organ system balance.

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A fast method of determining maximum strains given by partial mobile loads, uniformly distributed.

P. 510 (REVISTA TRANSPORTURILOR) (Bucuresti, Rumania) Vol. 4, no. 11, Nov: 1957

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Mud fluid losses and their elimination. Geol pruzkum 6 no.8:
231-233 Ag '64

1. Ceskoslovenske naftove doly National Enterprise, Hodonin;
Research Institute of the Ceskoslovenske naftove doly, Brno.

BRUMSHTEYN, I., inzh.; BESSARABENKO, A.

Lightweight designs of reinforced-concrete arches. Sel'.stroï.
15 no. 2:26 F '61. (MIRA 14:5)

1. Rukovoditel' sektora unifikatsii konstruktsiy nauchno-issle-
dovatel'skogo instituta sel'skikh zdaniy i sooruzheniy.
(Reinforced concrete construction)(Arches)

BRUMSHTEYN, M. S.

BRUMSHTEYN, M. S. -- "Data on the Pathological Anatomy of Electric Trauma." Sub 20 Oct 52, Second Moscow State Medical Inst imeni I. V. Stalin. (Dissertation for the Degree of Doctorate in Medical Sciences).

SO: Vechernaya Moskva January-December 1952

USSR/Human and Animal Morphology (Normal and Pathological)
Peripheral Nervous System

S-3

Abs Jour : Ref Zhur - Biol., No 12, 1958, No 55118

Author : Brunshteyn, M.S.

Inst : Not Given

Title : Changes of Intervertebral Nodules in Myocardial Infarcts.

Orig Pub : Arkhiv patologii, 1956, 18, No 7, 132-133

Abstract : Studies of intervertebral nodules were made of people who have died of myocardial infarcts (I-III thoracic). Microscopic examination revealed changes in the ganglion cells, in nerve fibers and in the stroma, which in the author's opinion are connected with pathologic impulses stemming from the myocardial focus. The thus obtained data prove that I-III nodules participate when the synapton complex of myocardial infarcts appears.

Card : 1/1

BRUMSHTEYN, M.S., prof. (Astrakhan')

Review of F. Becker's "Study of pancreatic secretion" [in German].
Ark.pat. 21 no.2:83-87 '59. (MIRA 12:12)
(PANCREAS--SECRECTIONS) (BECKER, F.)

BRUMSHTEYN, M.S., prof.; KOLEGANOVA, Yu.K.

Work of the Astrakhan Society of Pathoanatomist in 1954-1956. Arkh.
pat. 21 no.2:88-89 '59. (MIRA 12:12)

1. Predsedatel' Astrakhanskogo obshchestva patologoanatomov (for
Brumshteyn). 2. Sekretar' Astrakhanskogo obshchestva patologoana-
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(ASTRAKHAN--PATHOANATOMICAL SOCIETIES)

BRUMSHTEYN, M.S., prof.

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(ASTRAKHAN--PATHOANATOMICAL SOCIETIES)

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Problem of morphological changes in diseases of fish. Arkh.pat.
22 no.9:50-56 '60. (MIRA 13:12)
(FISHES—DISEASES AND PESTS)

BRUMSHTEYN, M.S.; VISHNEVETSKIY, F.Ye.; GORBUNOV, K.V.; KOBLITSKAYA, A.F.;
KRINITSKIY, V.V.; KUROCHKIN, Yu.V.; MOSKALENKO, A.V.

Causes of mass disease of the common carp in the Volga Delta;
preliminary report. Vop.ikht. no.14:175-181 '60. (MIRA 13:8)

1. Astrakhanskiy gosudarstvennyy zapovednik i kafedra patologi-
cheskoy anatomii Astrakhanskogo meditsinskogo instituta.
(Volga Delta--Carp--Diseases and pests)
(Water--Pollution)

BRUMSHTEYN, M.S., prof.

"Physiology and experimental pathology of the liver" by A.Fischer.
Reviewed by M.S.Brumshtein. Pat. fiziol. i eksp. terap. 5 no.6:
85 N-D '61. (MIRA 15:4)

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BRUMSHTEYN, M.S., prof.

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(Histology, Pathological)

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Work of the Astrakhan Society of Pathoanatomists for 1959-1962.
Ark. pat. 25 no.8:94-95 '63 (MIRA 17:4)

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Chemical composition of different varieties of cabbage,
onion, and green vegetables. Kons. i ov.prom. 15 no.2:
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1. Gribovskaya ovoshchnaya optyno-selektsionnaya stantsiya.
(Vegetables--Varieties)

BRUMSHTEYN, V.D.

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ovoshch. no.6:137-145 '61. (MIRA 14:6)

1. Gribovskaya ovoshchnaya selektsionnaya stantsiya.
(Vegetables) (Plants—Chemical analysis)

BRUMSHTEYN, V.D.

Biochemical method for selecting varieties of cabbage for long storage. Biokhim.pl.i ovoshch. no.7:148-159 '62. MIRA 16:1)

1. Gribovskaya opytно-selektсионnaya stantsiya,
(Cabbage--Varieties)

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Changes in the chemical composition of perennial Egyptian onion during its growth. Biokhim.pl.i ovoshch. no.7:230-239 '62.

(MIRA 16:1)

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BRUMSHTEYN, V.D.; METLITSKIY, L.V.

Biochemical method for selecting plants in order to increase their resistance to microorganisms. Dokl. AN SSSR 149 no.5:1197-1199
Ap '63. (MIRA 16:5)

1. Gribovskaya ovoshchnaya selektsionnaya opytanaya stantsiya i Institut biokhimii im. A.N.Bakha AN SSSR. Predstavleno akademikom A.I.Oparinym.
(Plants—Disease and pest resistance) (Peroxidases)

BRUMSTEIN V. I.

BRUMSTEIN V. I. Hygiene evaluation of protective clothing for workers in hot shops
Gigiena i Sanitariya, Moscow 1949, 7 (27-34) Graphs 3 Illus. 1

The author describes the results of experiments with different types of protective clothing made at the Institute of Hygiene of labour and professional diseases (Academy of Medical Science, U.S.S.R.). There exist at present two fundamental types of protective clothing for hot shops. The first is based on the protection of a layer of interposed air, the second on reflection of caloric radiation by a metallic surface. A third, intermediate, type is constituted by metallic nets presenting a combination of characteristics of both the above-mentioned types. The first type of clothing has a lining of light woolen material called 'Karusa' between the exterior fabric of the clothing and its lining. Experiments effected by the author showed that interposed sheets of wool or cotton have the same protective power. The essential feature is the interposition of air; it is possible in such cases, when there is no danger of fire, to replace the wool by a cotton fabric with wide meshes. This type of fabric was adopted in 1940. Protective clothing of the second type has a continuous metallic surface. The part of the clothing exposed to radiation is covered by small plates of a metal of high coefficient of reflection (for example tin, whose coefficient of reflection is 94 %). In order to leave aeration unhampered, the upper edge only of the metallic plates is fastened. The intermediate type of clothing contains a bronze net. Two subjects, aged 20 to 23, were exposed to thermal radiation and protected successively by: (a) Canvas, then moleskin clothing, the first including an interposed sheet of wool and a cotton net, the second a net only. The lining was made of a light cotton fabric. (b) A metal coating consisting of an apron with 5 cm. tin plates (weight 2 kg.) or aluminium plates (1 kg.) The experiment included periods of adaptation (35 minutes), irradiation (35 minutes), and return to normal.

(40 minutes) at a temperature of 18 to 20° C. and at a humidity degree of 40 to 60 %

The temperature of the skin and of the interposed air was measured on the chest by thermocouples, also that of the interior and exterior surfaces of the clothing: the hygroscopic state beneath the clothing and the loss of weight of the subject were also noted. Moreover, the thermal impressions of the subject were noted on a scale of seven different degrees (1-very cold, 2-cold, 3-cold, 3-cool, 4-temperate, 5-warm, 6-hot, 7-very hot). With clothing including interposed sheet and net: (1) The temperature of the skin, of the adjacent air and of the interior surface of the clothing was notably inferior to that in non-protected subjects. On the other hand, the temperature on the exterior surface was superior. This is a proof that the interposed sheet stops the thermal influx and that the warmth accumulates on the other side. (2) Whatever the fabric used, the result was the same. (3) As regards the sensations of the subject, the canvas clothing gave better results than the moleskin clothing. (4) When the irradiation became more intensive, the protective power of interposed air diminished. The clothing with interposed air could not therefore be considered as fully satisfactory. (5) The clothing slowed down the return to thermal and hydroscopic normal figures, which is an advantage in winter but renders work in hot shops still harder. Clothing with a reflecting metal surface gave very satisfactory results, both subjectively (temperate or comfortably warm) and objectively. However, the relatively high increase of cutaneous humidity (notable in the case of any protective clothing) showed the value of applying douches beneath the clothing, as proposed by Marhasseff and Stromberg. The chief defect of metal clothing, namely its weight and bulk, led the author to try metallized fabrics (aprons weighing no more than 300 g.). The result was satisfactory. It is to be noted, however, that their action varied according to their distance from the body (role of the interposed air, which, however, in this case is only accessory).

So: Medical Microbiology and Hygiene, Section IV, Vol 3, No 1-6

BRUMSHTEYN, V. I.

BRUMSTEYN, V. I.

Use of aluminum foil for protective clothing in metallurgic industry. Gig. sanit., Moskva no.8:28-31 Aug. 1950. (CML 20:1)

1. Of the Institute of Labor Hygiene and Occupational Diseases of the Academy of Medical Sciences USSR.

BRUMSHTEYN, V. I.

20973. BRUMSHTEYN, V. I. Poteri vlagi chelovekom v pokoe pri razlichnoi temperature vozdukha. (Gigiena i sanitariia, Dec. 1950, no. 12, p. 12-18, 2 fig., 5 tables) *Title tr.:* Loss of moisture at different temperatures in persons at rest.

Contains a study on two men and two women exposed to temperatures of 5.3° to 30.6° C., and a varying relative humidity. The loss of moisture was lower in the women than in the men under similar conditions; a gradual decrease of evaporation up to a temperature of 15°-18° C. was noticed, followed by an increase at a further rise of the air temperature (up to 32° C.); the more layers of clothing worn, the higher was the loss of moisture.

Copy seen: DLC.

BRUN, A.A.

COUNTRY	:	USSR	V
CATEGORY	:	Pharmacology and Toxicology. Cardiovascular Agents	
ABS. JOUR.	:	RZhBiol., No. 5 1959, No. 23201	
AUTHOR	:	Brun, A. A.	
INST.	:	Kharkov Medical Institute	
TITLE	:	Treatment of Hypertensive Patients with Omelan	
ORIG. PUB.	:	Tr. Kharkovsk. med. in-ta, 1958, vyp.37, 180-184	
ABSTRACT	:	On the basis of observation of 47 patients, omelan (O; preparation from Viscum album) is recommended for the treatment of hypertension. Under the influence of O, the arterial pressure decreases and the improvement of the coronary circulation, decrease in the frequency of pulse, increase of deflections in the EKG, acceleration of blood flow, and decrease of venous pressure take place. The content of cholesterol in the blood decreases. O is well tolerated by the patients.	
Card:	:	1/1	

(A) L 8583-66

ACC NR: AP5021516

SOURCE CODE: UR/0113/65/000/008/0008/0010

AUTHOR: Chernomashentsev, A. I.; Brun, A. M.

ORG: Gor'kiy Automobile Factory (Gor'kovskiy avtozavod)

TITLE: Tests of new start-up GAZ engine heaters at low temperatures

SOURCE: Avtomobil'naya promyshlennost', no. 8, 1965, 8-10

TOPIC TAGS: motor vehicle, vehicle engine, vehicle engine auxiliary system, vehicle engineering, low temperature effect, temperature test

ABSTRACT: This article reports on a design and testing (winters 1962-1964) of engine heaters intended for the initial warming up of GAZ-53A and TAZ-66 automobile engines. The device, consisting of a gasoline burner, heats the cooling water directly, and the crankcase oil by means of hot gases from the gasoline combustion. The unit has a 10,000 - 11,000 kcal/h productivity using 1.8 - 2 kg of fuel per hour. The heater was developed by NAMI jointly with the Gor'kiy Automobile Plant (Gor'kovskiy avtozavod) and it will be produced at the Utensk Factory of Laboratory Electrical Furnaces (Utenskiy zavod laboratornykh elektropetchey) in the Lithuanian SSR. Results show the change in temperature of various parts of different engines as a function of temperature. The Gor'kiy plant will begin to equip the engines with these heaters sometime in 1965. Orig. art. has: 2 figures.

SUB CODE: IE, TD / SUBM DATE: none/ ORIG REF: 001

Card 1/1

UDC: 621.431.73:62-69

VLOKH, N.P.; MOSHINSKIY, L.G.; BRUN, B.S.; ZOLOTAREV, M.A.;
PEPELYAYEV, B.I.; TAMGIN, V.S.

Eliminating cavities at the Pokrovskiy mine. Gor. zhur.
no. 12:73-74 D '65. (MIRA 18:12)

ULMER, K.; BRUN, E.; TRIETSCH, F.K.; NEGRETTI, W.; HESS, W.

Adhesion of metals. Technika 7 no.6:2 Je '63.

BRUN, K.

Brun, K.; Kacjan, M.; Kriznar, M. "Arandjelovac clays as a material for the production of electro-porcelain." p. 451. (Priroda. Vol. 18, no. 6/7, 1953. Zagreb)

SO: Monthly List of East European Accessions, Vol. 3, no. 3, Library of Congress, March 1954.
Uncl.

Insect repellents (benzamide). M. I. Brud and S. V. Zhuravlev. *Trudy Tsentral'noi Nauch.-Issledovatel'sk. Stantsii. Inst. 1954, No. 8, 123-5; Refrat. Zhur., Khim.* 1955, No. 9868. Eight substituted amides of benzoic acid in the general formula C_6H_5CONR , where R is an allyl or aryl group, were synthesized. Of these, diethylbenzamide, diisobutylbenzamide, dibutylbenzamide, diisopentylbenzamide, and benzylamine acted as insecticides and repellents for flies and ants. M. Rossi

USSR/Zooparasitology. Ticks and Insects - Vectors of G
The Causal Organisms. General Works.

Abs Jour: Ref. Zhur. - Eiol., No 23, 1958, 104069

Author : Brun, M. I.

Inst : Central Scientific Research Institute of
Disinfection

Title : Synthesis of Substances which Repel Mosquitoes,
Ticks and Fleas.

Orig Pub: Tr. Tsent. n.-i. dezinfekts. in-ta, 1957,
No 10, 240-246

Abstract: A number of phthalic acid esters were synthe-
sized for purposes of finding effective repel-
lents against mosquitoes, ticks and fleas as
well as for purposes of studying the relation-
ship of the repellent effect to the structure
and physicochemical properties of the organic

Card 1/2

BRUN, M. L., ZAKLOLIKINA, V. I., FEIDER, M. L.

"New preparations for repelling mosquitoes, fleas, and ticks."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists, 1959.

BRUN, M.P.; KOSTYRKO, O.S.

Reply to I.U.E. Bondarev's remarks. Zav.lab. 28 no.6:762
'62. (MIRA 15:5)

1. Institut liteynogo proizvodstva AN USSR.
(Steel--Brittleness)